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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/882,025	06/18/2001	Tetsuya Kuno	1190-0501P	8814

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EXAMINER
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HENN, TIMOTHY J

ART UNIT	PAPER NUMBER
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2612

DATE MAILED: 05/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/882,025	<b>Applicant(s)</b> KUNO ET AL.	
	<b>Examiner</b> Timothy J. Henn	<b>Art Unit</b> 2612	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 November 2004.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 4-8 is/are allowed.
- 6) ☒ Claim(s) 1-3 and 9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 November 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments, see amendment, filed 12 November 2004, with respect to claims 1-2 have been fully considered and are persuasive. The rejection of claims 1 and 2 over Watanabe has been withdrawn.

2. Applicant's arguments filed 12 November 2004 with respect to Ueda have been fully considered but they are not persuasive. The examiner ~~agrees~~ <sup>finds</sup> that Ueda does not disclose the claimed features of claims 1-3 and 9 in figures 42 and 43. However, Applicant's attention is directed to figure 44, figure 52 and paragraph 0222 (see included machine translation) of Ueda which serves as the basis for the rejection which follows.

### ***Drawings***

3. The drawings were received on 12 November 2004. These drawings are acceptable, the previous objections with regard to the drawings has been withdrawn.

### ***Claim Rejections - 35 USC § 102***

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

5. Claims 1-3 and 9 rejected under 35 U.S.C. 102(b) as being anticipated by Ueda (JP 09-284617).

**[claim 1]**

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Regarding claim 1, Ueda discloses an image pickup apparatus (Figure 52) comprising:

an image pickup element (Figure 52, Item 12 CCD) having a first surface and a second surface opposite to the first surface, said image pickup element having an image region formed in the first surface (i.e. below hole 231), such that a surface of the image region is in the same plane as the first surface;

an optical system (Figure 52, Item 4) that causes image light from a subject to form an image on the image region, that causes image light from a subject to form an image on the image region, the image region converting the image into an electrical signal (CCDs inherently convert incoming light or "the image" into electrical signals); and

a supporting member (Figure 52, Item 1) that engages the image pickup element and the optical system, the supporting member having a first abutment portion that directly abuts the optical system (i.e. top of substrate 1) and a second abutment that directly abuts the first surface of the image pickup element (i.e. bottom of substrate 1) as claimed.

**[claim 2]**

Regarding claim 2, the second abutment portion of Ueda would inherently abut an area on the first surface of CCD 12 except for the image region to allow the image formed by lens 4 to be converted by the CCD 12.

**[claim 3]**

Regarding claim 3, Ueda discloses an image pickup apparatus (Figures 44, 52) comprising:

- an image pickup element (Figure 52, Item 12 CCD) having a first surface and a second surface opposite to the first surface, said image pickup element having an image region formed in the first surface (i.e. below hole 231), such that a surface of the image region is in the same plane as the first surface;

- an optical system (Figure 52, Item 4; Figure 44, Item 54B; paragraph 0222) that causes image light from a subject to form an image on the image region, that causes image light from a subject to form an image on the image region;

- a supporting member (Figure 52, Item 1) that engages the image pickup element and the optical system, the supporting member having a first abutment portion on an upper surface that directly abuts said optical system (i.e. top of substrate 1) and a second abutment portion formed on a lower surface that directly abuts the image pickup element (i.e. bottom of substrate 1), the upper surface and the lower surface of the supporting member being opposite to on another (Figure 52); and

- a first holding member (Figure 44, Item 54A; paragraph 0222) that engages said optical system and said supporting member such that said optical system is sandwiched between the first holding member and the supporting member (Figure 52).

The examiner notes that Ueda in paragraph 0222 discloses an alternate embodiment of figure 52 wherein the lens 4 is replaced by the two piece lens system shown in figure 44. In this alternate embodiment the lens 54B is sandwiched between the supporting member (Figure 52, Item 1) and the holding member (Figure 44, Item

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54A). The examiner further notes that as broadly as claimed, the holding member 54A of Ueda can be said to “engage” or “involved” with both the optical system 54B and the supporting member 1 since claim 3 does not specifically call for the first holding member to be in direct contact with both the optical system and the supporting member. If claim 3 were amended to require such, this interpretation of Ueda would no longer be valid.

**[claim 9]**

Regarding claim 9, Ueda discloses an image pickup apparatus (Figures 44, 52) comprising:

- an image pickup element (Figure 52, Item 12 CCD) having a first surface and a second surface opposite to the first surface, said image pickup element having an image region formed in the first surface (i.e. below hole 231), such that a surface of the image region is in the same plane as the first surface;

- an optical system (Figure 52, Item 4; Figure 44, Item 54B; paragraph 0222) that causes image light from a subject to form an image on the image region, that causes image light from a subject to form an image on the image region;

- a supporting member (Figure 52, Item 1) that engages the image pickup element and the optical system, the supporting member having a first abutment portion on an upper surface that directly abuts said optical system (i.e. top of substrate 1) and a second abutment portion formed on a lower surface that directly abuts the image pickup element (i.e. bottom of substrate 1), the upper surface and the lower surface of the supporting member being opposite to on another (Figure 52); and

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a first holding member (Figure 44, Item 54A; paragraph 0222) that engages said optical system and said supporting member such that said optical system and said supporting member are sandwiched between the first holding member and the image pickup element (Figure 52).

The examiner notes that Ueda in paragraph 0222 discloses an alternate embodiment of figure 52 wherein the lens 4 is replaced by the two piece lens system shown in figure 44. In this alternate embodiment the lens 54B is sandwiched between the supporting member (Figure 52, Item 1) and the holding member (Figure 44, Item 54A). The examiner further notes that as broadly as claimed, the holding member 54A of Ueda can be said to "engage" or "be involved" with both the optical system 54B and the supporting member 1 since claim 9 does not specifically call for the first holding member to be in direct contact with both the optical system and the supporting member. If claim 9 were amended to require such, this interpretation of Ueda would no longer be valid.

***Allowable Subject Matter***

6. Claims 4-8 are allowed.

**[claims 4-8]**

In regard to claims 4-8, the prior art does not teach or fairly suggest an image pickup apparatus including an image pickup element, an optical system, a supporting member a first holding member and a circuit board as claimed; wherein said circuit board is fixed to said supporting member and electrically connected to said image

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pickup element, said circuit board having an opening formed therein such that said image region is exposed through the opening.

### ***Conclusion***

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Timothy J. Henn whose telephone number is (571) 272-7310. The examiner can normally be reached on M-F 9:00 AM - 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wendy R. Garber can be reached on (571) 272-7308. The fax phone

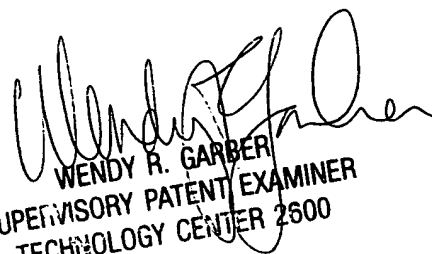


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number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TJH  
4/29/2005

  
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